

CLINICAL NOTES AND CASE REPORTS

VARICOSE VEINS

INDUSTRIAL COMPENSATION RELATIONSHIP: ARE THE DEEP VEINS PATENT?

REPORT OF CASES

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GANGRENE of the leg, requiring high amputation, following excision or obliteration of varicose veins, has been reported several times when adequate tests for patency of the deep veins had been neglected. Such accidents may be prevented by the bandage test,¹ which consists in bandaging the leg tightly with a linen mesh bandage so that the superficial veins are occluded. If the circulation in the deep veins has been previously obliterated by phlebitis and that in the superficial veins has been now obliterated by adequate bandaging, the patient will have severe pain if he tries to walk. This test requires no special knowledge, and is so simple that in large clinics it can be performed by the nurses before the doctor sees the patient.

However, patients occasionally present themselves in whom the bandage test alone is insufficient. It is perfectly true that if there is no pain on bandaging, the deep veins are patent. But it was not intended that every patient who has pain when the leg is bandaged should be rejected. Such patients need intensive study, with additional tests. A case in point is here reported.

REPORT OF CASE

A workman, age forty-five, seeking industrial compensation, was seen in consultation. He complained of pain at the site of varicose veins, along the medial aspect of the left leg just below the knee, which he declared came on following an accident which happened while at work four months before. He declared that the leg became bruised and swollen at this location and had since then given him so much pain that he was totally incapacitated. When asked whether the pain was worse if he walked or if he stood on his feet, whether it was relieved after he lay down, whether it was worse at night, and whether it was present when he awoke in the morning, he replied at once that he had the pain all the time. Physical examination revealed varicose veins of moderate size at the location mentioned. When the bandage test was made the patient said he could not have the bandage on it—that it caused him excruciating pain.

Two questions were raised: First, was his pain due to varicose veins? Second, did the pain on bandaging, so as to occlude the superficial veins, mean that the deep veins were occluded?

There was no history of locking of the knee and no tenderness over the internal semilunar cartilage. An x-ray had ruled out bone tumor and proliferative periostitis. An excellent pulsation in the artery tibi-
alis posterior ruled out arteriosclerotic changes. The

pain and tenderness were not up and down the leg along the distribution of any nerve. There was no discoloration of the toes and no pain in the feet; but to exclude more surely thrombo-angiitis obliterans, Samuel's test was made.

COMMENT

In Samuel's test the leg is elevated vertically while the patient is lying down. Then he is told to flex and extend his ankle alternately twenty times. If thrombo-angiitis obliterans is present, usually the sole of the foot turns pale and the patient has pain in the foot or cramps in the calf muscles.

When Samuel's test was made, the patient reported above complained of severe pain, not in the foot nor in the calf muscles, but superficially on the medial aspect of the leg just distal to the knee at the same old location as the varicose veins. There is no known organic disease that causes pain localized at such a point when Samuel's test is made. The patient's response to Samuel's test suggested malingering.

In answering the second question, as to whether the deep veins were patent, it was evident that reliance could not be placed upon the bandage test, for the patient was out after compensation and, therefore, complained of pain under any test. Objective tests not related to his accounts of his subjective feelings were necessary.

Perthe's test was made. In this test a tourniquet is applied above the level of the varicose veins, just tightly enough to obstruct the superficial venous circulation, with the patient standing. He then walks. If, after walking, the varicosities become much less prominent, it must be that the blood, although prevented by the tourniquet from flowing upward through the superficial veins, has been able to flow through communicating veins to the deep veins. Since these have drained the blood, they must be patent. The veins emptied quickly when he walked with the tourniquet on. This proved the deep veins patent.

A modified Trendelenburg test was also made. A tourniquet was applied around the thigh with the leg elevated. The leg was then lowered and the patient told to stand. The veins refilled at once, even before the tourniquet was released, showing that there was a reflex of blood through communicating veins from deep veins. This confirmed Perthe's test, demonstrating patency.

More serious is the problem when there is a frank history of deep phlebitis:

REPORT OF CASE

A housewife, aged thirty-four, complained of painful varicose veins for seventeen years which came on following an attack of phlebitis. There was much pain when the linen mesh bandage was applied. Was this because the phlebitis had obliterated her deep veins?

In this patient, when the Trendelenburg test was made repeatedly, with the tourniquet at successive levels on the leg, the varicose veins refilled immediately. This indicated that the blood came through communicating veins from patent deep veins. Injections were made. For several days

after each injection there was pain in the legs. However, this time the pain after injection was relieved, rather than made worse, by wearing a linen mesh bandage. Such relief is characteristic of injections following an old phlebitis.

Mechanical tests alone for the patency of the deep veins are insufficient when there is a past history of phlebitis. The tests may demonstrate the patency of the deep veins now, but injection may stir up the old phlebitis in deep veins and occlude them. Such patients should be treated rarely, if at all, by the occasional worker. A detailed discussion of factors involved in these cases, with special precautions needed, has been made by the author² and by Delater.³

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ASPERGILLUS DERMATOMYCOSIS*

REPORT OF CASE

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ALTHOUGH skin infections with aspergilli are known to exist in tropical countries, surprisingly few cases have been described from the United States. This dearth of cases seems out of proportion to the frequency with which the infection is casually mentioned by dermatologists. Puestow⁴ and Myers and Dunn³ have each recorded a case, while Lynch² in a general way associates such an infection with *Leptus* bites. Aside from these articles very little of a specific nature is recorded. It is therefore deemed advisable to describe the following case.

REPORT OF CASE

H. C., a Mexican male laborer of thirty-five years, entered San Diego County General Hospital June 18, 1931, on the skin service of Dr. Philip K. Allen. Three weeks previously, he first noticed a reddened swelling on the dorsum of the left hand and wrist while working in a sewer ditch. This ulcerated very rapidly (twelve hours) and gradually increased in area. There were swollen glands in the axilla, but no fever or other systemic symptoms. General physical examination was negative. Several days after admission, a reddened area was noted near the left eye. Superficial x-radiation was administered to both lesions without improvement. Several cultures from the wrist lesion yielded staphylococci. Urinalysis and Wassermann were negative. Blood count showed a total of 11,800 whites per millimeter,³ with 70 per cent neutrophils and 6 per cent eosinophils.

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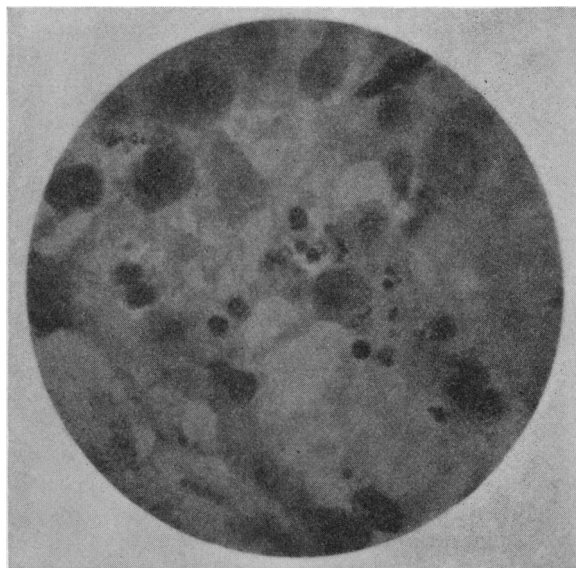


Fig. 1.—Small Gram-positive yeast-like bodies found in biopsy material with Gram-Weigert technique. 1250 X.

Two weeks after admission biopsy was resorted to in an attempt to clarify the diagnosis. This presented epithelioid hyperplasia and intra-epithelial abscesses quite similar to the picture seen in blastomycosis. Prolonged search did not reveal any such organisms. Gram-Weigert technique was employed in an attempt to demonstrate fungi of the "yeast type."

Deep in the cutis, and where the inflammatory exudate was thickest, small Gram-positive yeast-like organisms were found in groups, but could not be demonstrated to be budding (Fig. 1). These resembled very much organisms of the monilia group previously seen in tissues by the writer in a case reported as "torula."¹

Meanwhile the lesions had considerably improved with copper sulphate wet dressings and internal sodium salicylate administration and the patient was discharged to the outpatient clinic with instructions to return in one week. He failed to return for several weeks. He again presented himself at the hospital nineteen days after discharge, in a much aggravated condition.

At this time the lesion on the hand had spread considerably. Lesions on the face were very pronounced and presented small pustules but no ulceration. There was marked swelling, involving the region of both eyes, which extended to the conjunctival margins. The appearance at this time is shown by the illustrations (Figs. 2 and 3).

Cultures on Sabouraud's medium and plain agar and Loeffler's blood serum made during the previous admission were negative except for Loeffler's, which after one week's time showed a growth in the thinnest portion of the slant that had become somewhat dry. This was later successfully transferred to Sabouraud's media made with either maltose or dextrose. The appearance of the growth varied considerably between these two sugars.

At the second admission, cultures were made from the small pustules on the face but no growth was obtained. Wet mounts, however, presented asci having thick side walls and thin ends, filled with endospores. They were elongated (about 15 microns) and presented rather square ends.

The patient again improved on copper and zinc sulphate wet packs externally and sodium iodid intravenously and potassium iodid by mouth. He was discharged to the outpatient clinic four weeks after the second admission, much improved. The lesions subsequently progressed to complete healing.